



#6

1/20

SEQUENCE LISTING

<110> Eckert, Deborah M.  
Chan, David C.  
Malashkevich, Vladimir  
Carr, Peter A.  
Kim, Peter S.

<120> Inhibitors of HIV Membrane Fusion

<130> 0399.1192-008

<140> US 09/746,724

<141> 2000-12-21

<150> PCT/US99/17351

<151> 1999-07-30

<150> US 60/043,280

<151> 1997-04-17

<150> US 09/062,241

<151> 1998-04-17

<150> US 60/094,676

<151> 1998-07-30

<150> US 60/100,265

<151> 1998-09-14

<150> US 60/101,058

<151> 1998-09-18

<150> US 60/132,295

<151> 1999-05-03

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Arg Met Lys Gln Ile Glu Asp Lys Ile Glu Glu Ile Leu Ser Lys Gln

1

5

10

15

Tyr His Ile Glu Asn Glu Ile Ala Arg Ile Lys Lys Leu Ile Gly Glu

20

25

30

Arg

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 Arg Met Lys Gln Ile Glu Asp Lys Ile Glu Glu Ile Glu Ser Lys Gln  
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 Lys Lys Ile Glu Asn Glu Ile Ala Arg Ile Lys Lys Leu Leu Gln Leu  
                   20                  25                  30  
 Thr Val Trp Gly Ile Lys Gln Leu Gln Ala Arg Ile Leu  
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 1 5 10

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<220>  
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&lt;400&gt; 13

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Ser Gly Ile Val Gln Gln Gln Asn Asn Leu Leu Arg Ala Ile Glu Gln
 1           5           10           15
Gln His Leu Leu Gln Leu Thr Val Trp Gly Ile Lys Gln Leu Gln Ala
           20           25           30
Arg Ile Leu
           35

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&lt;210&gt; 14

&lt;211&gt; 34

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; C34

&lt;400&gt; 14

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Trp Met Glu Trp Asp Arg Glu Ile Asn Asn Tyr Thr Ser Leu Ile His
 1           5           10           15
Ser Leu Ile Glu Glu Ser Gln Asn Gln Gln Glu Lys Asn Glu Gln Glu
           20           25           30
Leu Leu

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&lt;210&gt; 15

&lt;211&gt; 16

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; D-peptide

&lt;400&gt; 15

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Lys Lys Gly Ala Cys Gly Leu Gly Gln Glu Glu Trp Phe Trp Leu Cys
 1           5           10           15

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&lt;210&gt; 16

&lt;211&gt; 16

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; D-peptide

&lt;400&gt; 16

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Lys Lys Gly Ala Cys Glu Leu Leu Gly Trp Glu Trp Ala Trp Leu Cys
 1           5           10           15

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&lt;210&gt; 17

&lt;211&gt; 18

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; D-peptide

&lt;400&gt; 17

Lys Lys Lys Lys Gly Ala Cys Glu Leu Leu Gly Trp Glu Trp Ala Trp  
 1 5 10 15  
 Leu Cys

&lt;210&gt; 18

&lt;211&gt; 16

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; D-peptide

&lt;400&gt; 18

Lys Lys Gly Ala Cys Met Arg Gly Glu Trp Glu Trp Ser Trp Leu Cys  
 1 5 10 15

&lt;210&gt; 19

&lt;211&gt; 18

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; D-peptide

&lt;400&gt; 19

Lys Lys Gly Ala Cys Pro Pro Leu Asn Lys Glu Trp Ala Trp Leu Cys  
 1 5 10 15  
 Ala Ala

&lt;210&gt; 20

&lt;211&gt; 17

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; HIV-1 Residues

&lt;400&gt; 20

Leu Leu Gln Leu Thr Val Trp Gly Ile Lys Gln Leu Gln Ala Arg Ile  
 1 5 10 15  
 Leu

&lt;210&gt; 21

&lt;211&gt; 24

<212> PRT  
 <213> Artificial Sequence

<220>  
 <223> 24 Residues from the N- Terminal End of N26

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 Ser Gly Ile Val Gln Gln Gln Asn Asn Leu Leu Arg Ala Ile Glu Ala  
 1 5 10 15  
 Gln Gln His Leu Leu Gln Leu Thr  
 20

<210> 22  
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 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> IQN24n

<400> 22  
 Met Arg Met Lys Gln Ile Glu Asp Lys Ile Glu Glu Ile Glu Ser Lys  
 1 5 10 15  
 Gln Lys Lys Ile Glu Asn Glu Ile Ala Arg Ile Lys Lys Leu Ile Ser  
 20 25 30  
 Gly Ile Val Gln Gln Gln Asn Asn Leu Leu Arg Ala Ile Glu Ala Gln  
 35 40 45  
 Gln His Leu Leu Gln Leu Thr  
 50 55

<210> 23  
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<220>  
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 Trp Xaa Trp Leu  
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<210> 24  
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<221> VARIANT  
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<400> 24  
 Glu Trp Xaa Trp Leu  
 1 5

<210> 25  
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<220>  
 <223> Soluble, Trimeric Version of the Coiled Coil  
 Region fo GCN4 in IQN17

<400> 25  
 Arg Met Lys Gln Ile Glu Asp Lys Ile Glu Glu Ile Glu Ser Lys Gln  
 1 5 10 15  
 Lys Lys Ile Glu Asn Glu Ile Ala Arg Ile Lys Lys  
 20 25

<210> 26  
 <211> 17  
 <212> PRT  
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<220>  
 <223> HIV-2 Sequence

<400> 26  
 Leu Leu Arg Leu Thr Val Trp Gly Thr Lys Asn Leu Gln Ala Arg Val  
 1 5 10 15  
 Thr

<210> 27  
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<220>  
 <223> SIV Sequence

<400> 27  
 Leu Leu Arg Leu Thr Val Trp Gly Thr Lys Asn Leu Gln Thr Arg Val  
 1 5 10 15  
 Thr



<210> 28  
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<220>  
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<221> VARIANT  
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 <223> Xaa = Any Amino Acid

<400> 28  
 Xaa Xaa Cys Xaa Xaa Xaa Xaa Xaa Glu Trp Xaa Trp Leu Cys Xaa Xaa  
 1 5 10 15

<210> 29  
 <211> 18  
 <212> PRT  
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<220>  
 <223> D-peptide

<221> VARIANT  
 <222> (1)...(18)  
 <223> Xaa = Any Amino Acid

<400> 29  
 Lys Lys Xaa Xaa Cys Xaa Xaa Xaa Xaa Xaa Glu Trp Xaa Trp Leu Cys  
 1 5 10 15  
 Xaa Xaa

<210> 30  
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<220>  
 <223> D-peptide

<221> VARIANT  
 <222> (1)...(20)  
 <223> Xaa = Any Amino Acid

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 1 5 10 15  
 Leu Cys Xaa Xaa  
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<210> 31  
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<221> VARIANT  
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 Xaa Xaa Cys Xaa Xaa Xaa Xaa Xaa Glu Trp Xaa Trp Leu Cys Xaa Xaa  
 1 5 10 15  
 Xaa

<210> 32  
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<221> VARIANT  
 <222> (1)...(19)  
 <223> Xaa = Any Amino Acid

<400> 32  
 Lys Lys Xaa Xaa Cys Xaa Xaa Xaa Xaa Xaa Glu Trp Xaa Trp Leu Cys  
 1 5 10 15  
 Xaa Xaa Xaa

<210> 33  
 <211> 21  
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<220>  
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<221> VARIANT  
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 Lys Lys Lys Lys Xaa Xaa Cys Xaa Xaa Xaa Xaa Xaa Glu Trp Xaa Trp  
 1 5 10 15  
 Leu Cys Xaa Xaa Xaa  
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<210> 34  
 <211> 16  
 <212> PRT  
 <213> Artificial Sequence

<220>  
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<400> 34  
 Gly Ala Cys Glu Ala Arg His Arg Glu Trp Ala Trp Leu Cys Ala Ala  
 1 5 10 15

<210> 35  
 <211> 16  
 <212> PRT  
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<220>  
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 1 5 10 15

<210> 36  
 <211> 16  
 <212> PRT  
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<220>  
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 Gly Ala Cys Ser Arg Ser Gln Pro Glu Trp Glu Trp Leu Cys Ala Ala  
 1 5 10 15

<210> 37  
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<220>  
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 Gly Ala Cys Leu Leu Arg Ala Pro Glu Trp Gly Trp Leu Cys Ala Ala  
 1 5 10 15

<210> 38  
 <211> 18  
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<220>

<223> D-peptide

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Lys Lys Gly Ala Cys Glu Ala Arg His Arg Glu Trp Ala Trp Leu Cys  
 1 5 10 15  
 Ala Ala

<210> 39

<211> 18

<212> PRT

<213> Artificial Sequence

<220>

<223> D-peptide

<400> 39

Lys Lys Gly Ala Cys Asp Leu Lys Ala Lys Glu Trp Phe Trp Leu Cys  
 1 5 10 15  
 Ala Ala

<210> 40

<211> 18

<212> PRT

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<223> D-peptide

<400> 40

Lys Lys Gly Ala Cys Ser Arg Ser Gln Pro Glu Trp Glu Trp Leu Cys  
 1 5 10 15  
 Ala Ala

<210> 41

<211> 18

<212> PRT

<213> Artificial Sequence

<220>

<223> D-peptide

<400> 41

Lys Lys Gly Ala Cys Leu Leu Arg Ala Pro Glu Trp Gly Trp Leu Cys  
 1 5 10 15  
 Ala Ala

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<220>  
 <223> Invariant Residues in HIV-1, HIV-2 and SIV

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<210> 43  
 <211> 20  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> D-peptide

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 Lys Lys Lys Lys Gly Ala Cys Glu Ala Arg His Arg Glu Trp Ala Trp  
 1 5 10 15  
 Leu Cys Ala Ala  
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<210> 44  
 <211> 16  
 <212> PRT  
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<220>  
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<400> 44  
 Gly Ala Cys Gly Leu Gly Gln Glu Glu Trp Phe Trp Leu Cys Ala Ala  
 1 5 10 15

<210> 45  
 <211> 20  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> D-peptide

&lt;400&gt; 45

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1				5					10					15	
Leu	Cys	Ala	Ala												
			20												

&lt;210&gt; 46

&lt;211&gt; 20

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; D-peptide

&lt;400&gt; 46

Lys	Lys	Lys	Lys	Gly	Ala	Cys	Asp	Leu	Lys	Ala	Lys	Glu	Trp	Phe	Trp
1				5					10					15	
Leu	Cys	Ala	Ala												
			20												

&lt;210&gt; 47

&lt;211&gt; 15

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; D-peptide

&lt;400&gt; 47

Gly	Ala	Cys	Glu	Leu	Leu	Gly	Trp	Glu	Trp	Ala	Trp	Leu	Cys	Cys
1				5					10					15

&lt;210&gt; 48

&lt;211&gt; 20

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; D-peptide

&lt;400&gt; 48

Lys	Lys	Lys	Lys	Gly	Ala	Cys	Ser	Arg	Ser	Gln	Pro	Glu	Trp	Glu	Trp
1				5					10					15	
Leu	Cys	Ala	Ala												
			20												

&lt;210&gt; 49

&lt;211&gt; 20

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

<223> D-peptide

<400> 49

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 1           5           10           15
Leu Cys Ala Ala
                20
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<210> 50

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> D-peptide

<400> 50

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Gly Ala Cys Met Arg Gly Glu Trp Glu Trp Ser Trp Leu Cys Ala Ala
 1           5           10           15
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<210> 51

<211> 20

<212> PRT

<213> Artificial Sequence

<220>

<223> D-peptide

<400> 51

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Lys Lys Lys Lys Gly Ala Cys Met Arg Gly Glu Trp Glu Trp Ser Trp
 1           5           10           15
Leu Cys Ala Ala
                20
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<210> 52

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> D-peptide

<400> 52

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Gly Ala Cys Pro Pro Leu Asn Lys Glu Trp Ala Trp Leu Cys Ala Ala
 1           5           10           15
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<210> 53

<211> 20

<212> PRT

<213> Artificial Sequence

&lt;220&gt;

&lt;223&gt; D-peptide

&lt;400&gt; 53

Lys Lys Lys Lys Gly Ala Cys Pro Pro Leu Asn Lys Glu Trp Ala Trp  
 1 5 10 15  
 Leu Cys Ala Ala  
 20

&lt;210&gt; 54

&lt;211&gt; 16

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; D-peptide

&lt;221&gt; VARIANT

&lt;222&gt; (1)...(16)

&lt;223&gt; Xaa = Any Amino Acid

&lt;400&gt; 54

Gly Ala Cys Xaa Xaa Xaa Xaa Xaa Glu Trp Xaa Trp Leu Cys Ala Ala  
 1 5 10 15

&lt;210&gt; 55

&lt;211&gt; 18

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; D-peptide

&lt;221&gt; VARIANT

&lt;222&gt; (1)...(18)

&lt;223&gt; Xaa = Any Amino Acid

&lt;400&gt; 55

Lys Lys Gly Ala Cys Xaa Xaa Xaa Xaa Xaa Glu Trp Xaa Trp Leu Cys  
 1 5 10 15  
 Ala Ala

&lt;210&gt; 56

&lt;211&gt; 20

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; D-peptide



<221> VARIANT  
 <222> (1)...(20)  
 <223> Xaa = Any Amino Acid

<400> 56  
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 1 5 10 15  
 Leu Cys Ala Ala  
 20

<210> 57  
 <211> 16  
 <212> PRT  
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<220>  
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<221> VARIANT  
 <222> (1)...(16)  
 <223> Xaa = Any Amino Acid

<400> 57  
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 1 5 10 15

<210> 58  
 <211> 18  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> D-peptide

<221> VARIANT  
 <222> (1)...(18)  
 <223> Xaa = Any Amino Acid

<400> 58  
 Lys Lys Xaa Xaa Cys Xaa Xaa Xaa Xaa Xaa Glu Trp Xaa Trp Leu Cys  
 1 5 10 15  
 Xaa Xaa

<210> 59  
 <211> 20  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> D-peptide

<221> VARIANT  
 <222> (1)...(20)  
 <223> Xaa = Any Amino Acid

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 1 5 10 15  
 Leu Cys Xaa Xaa  
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<210> 60  
 <211> 17  
 <212> PRT  
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<220>  
 <223> D-peptide

<221> VARIANT  
 <222> (1)...(17)  
 <223> Xaa = Any Amino Acid

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 1 5 10 15  
 Xaa

<210> 61  
 <211> 19  
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<220>  
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<221> VARIANT  
 <222> (1)...(19)  
 <223> Xaa = Any Amino Acid

<400> 61  
 Lys Lys Xaa Xaa Cys Xaa Xaa Xaa Xaa Xaa Glu Trp Xaa Trp Leu Cys  
 1 5 10 15  
 Xaa Xaa Xaa

<210> 62  
 <211> 21  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> D-peptide

<221> VARIANT  
 <222> (1)...(21)  
 <223> Xaa = Any Amino Acid

<400> 62  
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 1 5 10 15  
 Leu Cys Xaa Xaa Xaa  
 20

<210> 63  
 <211> 12  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Sequence Pattern in C-Terminal Residues in  
 D-peptides

<221> VARIANT  
 <222> (1)...(12)  
 <223> Xaa = Any Amino Acid

<400> 63  
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 1 5 10

<210> 64  
 <211> 18  
 <212> PRT  
 <213> Artificial Sequence

<220>  
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<400> 64  
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 1 5 10 15  
 Ala Ala

<210> 65  
 <211> 18  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> D-peptide

<400> 65  
 Lys Lys Gly Ala Cys Glu Leu Leu Gly Trp Glu Trp Ala Trp Leu Cys  
 1 5 10 15  
 Ala Ala

<210> 66  
 <211> 20  
 <212> PRT  
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<220>  
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<400> 66  
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 1 5 10 15  
 Leu Cys Ala Ala  
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<400> 67  
 Lys Lys Gly Ala Cys Met Arg Gly Glu Trp Glu Trp Ser Trp Leu Cys  
 1 5 10 15  
 Ala Ala

<210> 68  
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<220>  
 <223> D-peptide

<400> 68  
 Lys Lys Gly Ala Cys Pro Pro Leu Asn Lys Glu Trp Ala Trp Leu Cys  
 1 5 10 15  
 Ala Ala